

DIVISION 200 EARTHWORK

SECTION 201 CLEARING AND GRUBBING

201.1-DESCRIPTION:

This work shall consist of clearing, grubbing, removing, and disposing of all vegetation and debris within the construction limits and in other areas within the right-of-way or easement limits, as set forth in the Contract or as designated by the Engineer, including selective clearing of areas; site grading of public and private roadways, lanes, vehicular paths or any other existing man made improvements which lie between the construction and right-of-way limits; except such objects as are designated to remain or to be removed in accordance with other sections of these Specifications. This work shall also include preservation from injury or defacement of all vegetation and objects to remain.

201.2-MATERIALS:

Asphaltum base paint for tree surgery shall conform to the requirements of [715.36](#).

CONSTRUCTION METHODS

201.3-GENERAL:

The Engineer will designate the trees, shrubs, plants and other items to be removed or to remain. All items designated to remain shall be preserved by the Contractor. Alignment stakes, grade stakes, guard stakes, boundary markers, bench marks and tie points shall be preserved until such time as their usefulness has ceased and permission for their destruction is given by the Engineer.

201.4-CLEARING:

Areas indicated on the Plans, and borrow and waste sites furnished by the Division, shall be cleared of the obstructions described. In areas where the proposed embankment is to be 5 ft. (1.5 meters) or more in depth, measured below the subgrade, all stumps shall be cut off as close to the ground as is practicable but not to exceed 6 inches (150 mm) above the ground surface at the base of the stumps. When stumps are located in the area of the backslope rounding of cut sections, they are to be cut flush with or below the final slope line. Areas where the proposed embankment is to be less than 5 ft. (1.5 meters) shall be treated as prescribed in [201.6](#).

All merchantable timber and wood in the clearing area, except trees designated to remain, which has not been removed from the right-of-way prior to the date of advertising for bids shall become the property of the Contractor, unless otherwise provided.

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Unsound or unsightly branches of trees and shrubs which are designated to remain, and are not specified to be removed under another item, shall be removed as directed. Branches of trees extending over the area occupied by the roadbed shall be trimmed to give a clear height of 20 ft. (6 meters) above the road and shoulder pavement surface. All trimming shall be done by skilled workers and in accordance with good tree surgery practices.

In all areas where stumps and shrubs are to remain, the surface of the ground shall not be unduly disturbed or compacted. Existing ground cover shall be preserved insofar as possible, and the area shall be left neat and clear and in a condition which is reasonably consistent with the surroundings.

All abandoned utility poles within the limits of the right-of-way shall be removed and disposed of by the Contractor. The removal shall be treated in a similar manner as the clearing and grubbing of trees. The poles to be abandoned will be marked by the Project Engineer.

201.5-SELECTIVE CLEARING AND THINNING:

In order that the trees may be properly marked in advance of thinning operations, the Contractor shall give the Engineer at least two weeks notice prior to starting work or prior to resuming work after suspending operations. Trees or bushes not designated to remain shall be cut. In no event shall selective clearing and thinning operations begin until the Engineer has given approval.

All dead or diseased trees or shrubs, junk, trash, litter, or foreign matter of any kind shall be removed from the areas to be treated. This shall include uprooted stumps and all branches, tops, trunks, and dead wood resulting from woodcutting operations or from any other causes.

Trees and shrubs to be preserved shall be carefully pruned to remove all dead wood and diseased or injured tops or branches. In addition, in certain areas the Engineer may require the branches of designated trees to be removed to a height of 20 ft. (6 meters) above ground as directed in order to improve sight distance, provide head clearance, open vistas, or improve appearance of the tree. Complete clearing may be required in certain areas for the purpose of removing shade hazards, improving sight distances, or improving appearance. Such clearing shall be included under this Section.

The Contractor shall avoid disturbing or compacting the existing ground surface, as well as avoid damage to plant growth. The use of tractors, cranes, winches, or any other heavy equipment, operating anywhere within the area to be selectively thinned, will not be allowed unless exceptions are specifically authorized.

Any injury to trees and shrubs which are to be preserved shall be carefully repaired. Disturbed ground surface shall be restored as nearly as possible to natural condition.

All pruning and repair to live trees and shrubs shall be done by skilled workers according to approved arboricultural practice. All pruning scars and all cuts and wounds 1 in. (25 mm) in diameter or over shall be painted with an asphaltum base paint. The Engineer may permit such cuts on evergreen trees to

remain unpainted. All stumps, new or old, shall be cut to a maximum height of 6 inches (150 mm) above the surrounding ground or as directed by the Engineer. Undesirable trees leaning or falling over the highway right-of-way from outside shall be cut at the property line.

201.6-GRUBBING:

In areas where embankments are to be constructed less than 5 ft. (1.5 meters) in depth, measured below the subgrade, complete grubbing of all trees, stumps, roots, bushes or hedge fences shall be accomplished.

In areas where embankments are to be constructed 5 ft. (1.5 meters) or more in depth, measured below the subgrade, stumps which have not been loosened by clearing and grubbing operations, and nonperishable solid objects, need not be grubbed or removed provided they are cut off so as not to protrude more than 6 inches (150 mm) above the original ground surface. Near the toe of embankment slopes no stump shall extend above a point 1 ft. (300 mm) beneath the embankment slope surface.

In areas not included within construction limits or selective clearing areas, all stumps shall either be grubbed or cut flush with or below the original ground line. Brush, shrubs, down timber, rotten wood, rubbish and other objectionable objects and vegetation shall be cleared flush with the ground. Such areas will be clearly indicated on the Plans.

201.7-DISPOSAL:

All wood, trash, debris, stumps, and other foreign matter shall be removed and disposed of by the Contractor. Material may be disposed of at approved waste areas or in accordance with the provisions prescribed. Non-combustible material may be disposed of in embankments in accordance with the applicable provisions.

In urban areas, open burning of construction wastes, demolition wastes, and vegetation will not be permitted. However, if the Engineer determines that no other practical means of disposal exists, open burning of selected vegetation, such as trunks, limbs, etc., approximately 4 inches (100 mm) diameter or less, will be permitted. Vegetation must also be dry and stacked in such a manner as to promote combustion. Incinerations, including air curtain burners, may be used provided they are approved by the West Virginia Air Pollution Control Commission. In rural areas, open burning will be permitted under controlled conditions to minimize the amount of smoke. All burning must take place after sunup and all fires must be extinguished by sundown. It is the intent of this Specification that the health, safety, comfort, and the property of persons in the vicinity are protected from the effects of such burning. All burning shall be done in accordance with the applicable laws, ordinances, and regulations, and it shall be further subject to the applicable provisions of West Virginia Administrative Regulation, Air Pollution Control Commission, Chapters 16-20, Series VI.

No burning shall be done except under carefully controlled conditions. When material is burned, extreme care shall be taken with fires. Burning shall

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be done under the care of competent watchmen and in such manner that the surrounding vegetation, objects designated to remain on the right-of-way, or adjacent property shall not be jeopardized or damaged.

At the option of the Contractor, combustible material may be reduced to chips of a maximum size of ½ inch (15 mm). The chips may be disposed of in areas where erosion control is required, as a substitute for straw mulch in accordance with the Applicable provisions of 642 and 652, or between slope lines and right-of-way lines as determined by the Engineer.

The Contractor will be held responsible for any damage caused by fires. The Contractor shall remove and dispose of burned material; replace trees, shrubs, fences or other objects designated or described to remain, but which have been damaged; and seed burned areas; all in an acceptable manner. Upon completion of the work, nothing shall remain within the right-of-way limits, nor along the land adjacent thereto, which was designated for removal in this Specification, which was deposited by the Contractor as the result of any of the operations of construction, which is a nuisance, of any unsightly nature, or in any manner obstructing natural drainage.

Concrete, stone, brick, and other masonry materials which have been broken into pieces not exceeding 2 ft. (600 mm) in any dimension may be permitted in embankments but not within 2 ft. (600 mm) of the subgrade 1 ½ ft. (450 mm) of the top of the side slopes. Material such as wood, steel, and broken concrete matted together by steel reinforcement will not be permitted in any portion of the embankment. All voids shall be completely filled with suitable material and compacted to the density specified in 207.

The disposal of Construction/Demolition Waste Materials shall be in accordance with Section 207.6.5.

201.8-METHOD OF MEASUREMENT:

The quantity of work done, will be on a lump sum basis.

Clearing and grubbing for waste sites or borrow pits furnished by the Contractor shall be included in the bid price for Item 207001-*, "Unclassified Excavation"; Item 211001-*, "Unclassified Borrow Excavation"; Item 211002-*, "Rock Borrow Excavation"; or Item 211003-*, "Select Borrow Excavation".

The removal of trees outside of clearing and grubbing and selective clearing areas designated on the Plans shall be accomplished under the provisions of 109.4.

201.9-BASIS OF PAYMENT:

The quantities, determined as provided above, shall be paid for at the contract price bid for the item listed below, which price and payment shall be full compensation for doing all the work prescribed in a workmanlike and acceptable manner, including all labor, materials, tools, equipment, supplies, and incidentals necessary to complete the work. The lump sum bid price will be full compensation for the estimated quantities shown in the Plans. Any increase or decrease from estimated quantities will be adjusted for total compensation on a prorate basis consistent with areas that have been added or

deleted.

All salvable material including merchantable timber shall become the property of the Contractor unless otherwise indicated on the Plans or in the Proposal, and any salvage expected shall be computed as a credit before arriving at the bid price for this item.

201.10-PAY ITEM:

ITEM	DESCRIPTION	UNIT
201001-*	CLEARING AND GRUBBING	LUMP SUM

* Sequence number

SECTION 202 BUILDING DEMOLITION

202.1-DESCRIPTION:

This work shall consist of complete demolition of such buildings and appurtenances as are specifically designated on the Plans for removal. It shall include rodent control when specified in the Contract, and disconnecting utilities, salvaging and disposing of the resulting materials in the manner and subject to the conditions and regulations prescribed.

202.2-MATERIALS:

The rodenticide treated bait shall consist of the following:

Type I Bait-An anticoagulant, 0.5 percent concentrate, such as warfarin, pival, fumarin, PMP, etc., mixed with cereals and other rodent attractants in the following proportions by weight:

One part anticoagulant to seven parts coarse yellow corn meal; five parts rolled oats; one part granulated sugar; one part corn oil.

In the event rodents do not accept this formula chopped fruit may be substituted for the rolled oats in the same proportion.

Type II Bait-Zinc phosphide, 100 percent concentrate (94 percent minimum assay), mixed in the proportion of 1:96 (one ounce to six pounds) of ground meat or canned dog food.

All rodenticides shall be handled and mixed in the bait in accordance with the manufacturers' instructions.

Insecticide-Two percent Diazinon Dust, or five percent Malathion Dust, or 10 percent Carbaryl Dust, or two to five percent Chlordane Dust.

CONSTRUCTION METHODS

202.3-UTILITIES:

The Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work to the satisfaction of the utility companies and municipal departments involved in connection with the discontinuance or interruption of all public utilities or services, such as gas,